



One Cyclotron Road  
Berkeley, California 94720

Ernest Orlando Lawrence  
Berkeley National Laboratory

June 16, 2003

State of California  
Office of Planning and Research  
1400 Tenth Street  
Sacramento, CA 95814

## Notice of Preparation Draft Focused, Tiered Environmental Impact Report

**Project Title:** Construction and Operation of Building 49  
and the G-4 Parking Lot

**Project Location:** Lawrence Berkeley National Laboratory

**Lead Agency:** University of California

**County:** Alameda County

The University of California will be the Lead Agency and will prepare a focused, tiered Environmental Impact Report (EIR) for the proposed construction and operation of **Building 49** and the **G-4 Parking Lot** for Lawrence Berkeley National Laboratory (LBNL), located in the cities of Berkeley and Oakland, Alameda County, California. These otherwise separate projects will be reviewed together in the EIR because LBNL would prefer to use material excavated from the proposed Building 49 office building site in the construction of the proposed G-4 parking lot.

A brief summary of the project description follows, along with a description of alternatives to be considered (Attachment A). **LBNL will hold a Public Scoping Meeting for the EIR on June 30, 2003 at the North Berkeley Senior Center (1901 Hearst Avenue, Berkeley, 6:30 pm to 9:00 pm). Details are provided below (Attachment B).** A fully detailed project description and preliminary discussion of environmental issues, along with project graphics, is included in the attached Initial Study (Attachment C).

We request your agency's views as to the scope and content of the environmental information germane to your agency's statutory responsibilities pertinent to the proposed Project. Your agency will need to use the EIR when considering any applicable permit(s) or other approval(s) for the proposed Project.

Your response should be sent not later than 30 days after receipt of this notice to be considered for the EIR scope and analysis. The name of a contact person within your agency should be included with your response.

Please send your response to: Jeff Philliber, Environmental Planning Coordinator  
Lawrence Berkeley National Laboratory, MS 90K  
One Cyclotron Road, Berkeley, California 94720

If you have any questions about this process, please contact Jeff Philliber, EIR Coordinator for this Project, at the above address or at 510/486-5257.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Laura Chen, Chief Facilities Planner  
Lawrence Berkeley National Laboratory

Attachments: Summary Project Description and Scope of Focused Tiered EIR  
Public Scoping Meeting Announcement  
Initial Study and Project Maps/Graphics

cc. State Clearinghouse  
Alan Waltner, UCOP General Counsel  
John E. Zimmermann, Office of the President, Design and Construction  
LBNL CEQA Agency and Public Mailing List

## **Attachment A**

### **Summary Project Description and Scope of Focused Tiered EIR**

The Building 49 project site is located on a west-facing hillside, between Cyclotron Road and East Road, on the western side of the LBNL site, within the city limits of Berkeley. The G-4 parking lot project site is located on south and east-facing hillsides, south of Building 70A and east of Cyclotron Road. A detailed discussion of project description, location, and the potential environmental effects is contained in the attached Initial Study.

#### **Building 49**

Building 49 would be a six-story, 65,000 sq. ft. office building constructed at LBNL by a third-party developer who would lease the building to the University for LBNL's use. It would provide "decompression" office space for up to 240 staff who already work at LBNL under overcrowded conditions; it would not change the population at LBNL and would cause no new automobile commute trips. No laboratory research or space would be included in this building; accordingly, no hazardous laboratory chemicals or radionuclides would be emitted.

The approximately 1.08-acre project site is currently undeveloped and is located on the hillside east of Cyclotron Road, near LBNL's main entrance, and adjacent to the Building 50 complex. Building 49 construction would take place from approximately Spring 2004 to Fall 2005. The Project would require excavation, construction of new infrastructure, and site re-vegetation. The site has no record of soil contamination or other past activities that might be indicative of contamination. Approximately 26,000 cubic yards of soil would be excavated from the site for construction of the proposed building. The site is primarily vegetated with eucalyptus trees and non-native grassland. No Federally or State listed species of concern are known to exist on the site.

#### **G-4 Parking Lot**

The G-4 parking lot would be constructed on fill on slopes south of the building 50 and 70 complexes. It would range from a minimum of 31,000 square feet and 95 parking stalls up to a maximum of 39,000 square feet and 120 parking stalls. The minimum size would use about 26,000 cubic yards of fill--preferably from the Building 49 project excavation. The maximum parking lot size, which would be built as an optional second phase, would only be constructed if additional soil were to become available in the future. The G-4 parking lot would serve the approximately 1,235 current occupants of the Building 50 and Building 70 complexes, which currently are served by fewer than 250 parking spaces dedicated to those buildings.

Construction of the G-4 parking lot would require the alteration of a small drainage (approximately 0.03 acres) that runs through the project site so that the site may receive fill. In order to do this, it is anticipated that the proposed Project will require a Clean Water Act Section 404 Nationwide permit from the US Army Corps of Engineers, a Clean Water Act section 401 water quality certification from the San Francisco Regional Water Quality Control Board, and a streambed alteration agreement from the

California Department of Fish and Game. In addition, it would require the removal of several trees and other vegetation, including oak trees and some riparian plant species, from the lower elevations of the project site.

### **Scope of Environmental Impact Report**

Environmental issues that will be analyzed in detail in this focused, tiered EIR include: aesthetics; air quality; biological resources; cultural resources; geology, soils, and seismicity; hazards and hazardous materials; hydrology and water quality; land use and planning; noise; public services; transportation and traffic; utilities and service systems; and cumulative impacts. Environmental issues to be focused out of this EIR are: agricultural resources; mineral resources; population and housing; and recreational resources. The EIR will be tiered off of LBNL's 1987 Long Range Development Plan EIR, as amended, and will incorporate all applicable mitigation measures from that EIR, as appropriate.

The following alternatives for both components of the Project—Building 49 and the G-4 parking lot—in addition to the “No Project” alternative, will be considered for analysis in the EIR:

Off-site lease(s): An equivalent amount of off-site space would be leased on the UC Berkeley campus, in the City of Berkeley, or in other nearby cities.

Alternate On-site Location(s): One equivalent-sized or a series of smaller buildings with equivalent total space would be constructed at different locations on-site.

Smaller Building: A smaller or differently designed building would be constructed at the presently proposed Project site. This building could include a smaller profile or footprint to reduce impacts identified in the EIR, as appropriate.

The following alternatives to the proposed G-4 parking lot will be considered in the EIR:

Soil Disposal On-site--Multiple Smaller Sites: Alternate sites would be found at Berkeley Lab to distribute the 26,000 cubic yards of excavated soil.

Soil Disposal On-site—Smaller Lot: A smaller or differently designed parking lot could be constructed at the presently proposed parking lot site. The smaller parking lot could include a reduced area of impermeable surface or a smaller volume of fill to reduce impacts identified in the EIR, as appropriate.

Soil Disposal at Off-site Landfill--University Avenue Route: 26,000 cubic yards of soil would be trucked out in approximately 2,150 round truck trips to a nearby use or area landfill. The trucks would depart through the Blackberry Canyon gate on Cyclotron Road, to Hearst Avenue, to University Avenue, to Interstate 80.

Soil Disposal at Off-site Landfill--Grizzly Peak Route: 26,000 cubic yards of soil would be trucked out in approximately 2,150 round truck trips to a nearby use or area landfill. The trucks would depart through the Grizzly Peak gate, up to Centennial Drive, to Grizzly Peak Blvd., to Fish Ranch Road, to Highway 24, to either Interstate 580 or Interstate 880.

## Attachment B Public Scoping Meeting

LBNL will hold a public scoping meeting open to all interested agencies and members of the public. The meeting is intended to provide information about Berkeley Lab's CEQA process, to present a brief overview of the Project, to identify environmental impact areas to be analyzed in the Draft EIR, and to invite public comment on the scope of the EIR analysis.

**What:** Scoping Meeting for LBNL Building 49 and G-4 Parking Lot EIR.

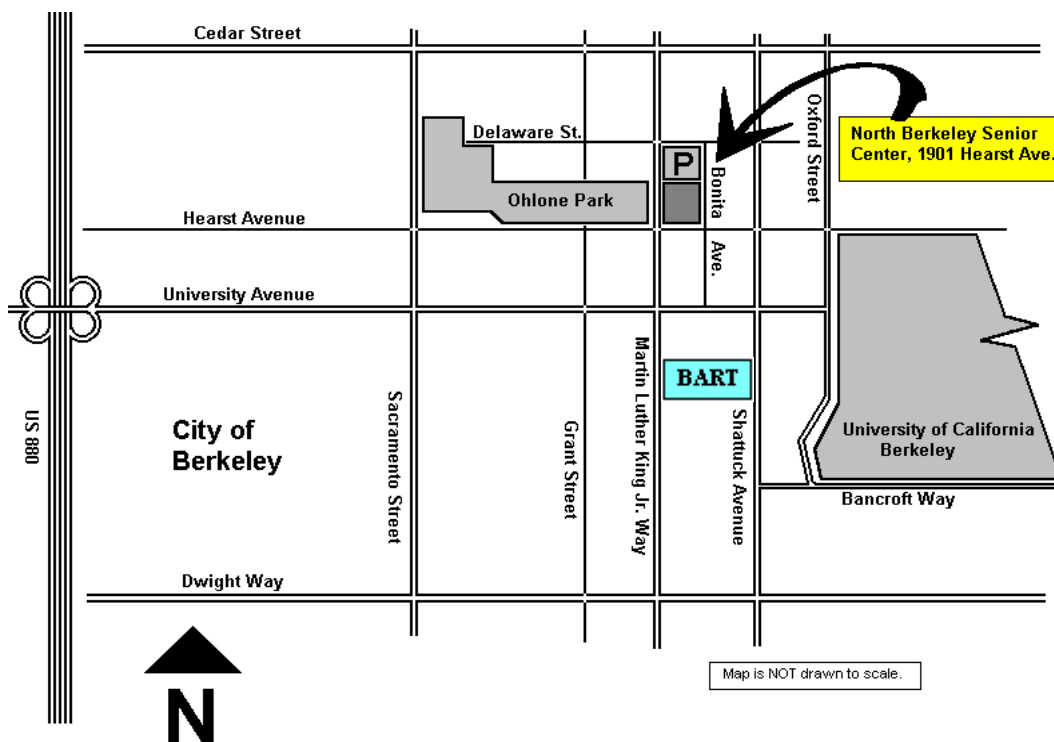
**When:** Monday, June 30, 2003: 6:30 p.m. to 9:00 p.m.

**Where:** North Berkeley Senior Center  
1901 Hearst Avenue, Berkeley

**Transportation  
and Parking:**

The North Berkeley Senior Center is wheel chair accessible and within walking distance from the Berkeley BART Station and various AC Transit bus lines. Parking is available at the North Berkeley Senior Center from Bonita Avenue.

### MAP TO NORTH BERKELEY SENIOR CENTER





One Cyclotron Road,  
Berkeley, California 94720

Ernest Orlando Lawrence  
Berkeley National Laboratory

June 16, 2003

## Initial Study

### I. PROJECT INFORMATION

**Project Title:** Construction and Operation of Building 49 Office Building and G-4 Parking Lot\*

**Lead Agency:** University of California, Lawrence Berkeley National Laboratory

**Address:** One Cyclotron Road, MS 90K, Berkeley, California 94720

**County:** Alameda County

**Contact Person:** Jeff Philliber  
Environmental Planning Group  
Lawrence Berkeley National Laboratory  
One Cyclotron Road, MS 90K  
Berkeley, California 94720

**Phone Number:** (510) 486-5257

\*--Referred to herein as “the proposed Project” or “the Project.”

### II. PROJECT DESCRIPTION

#### Description of Proposed Project

##### Building 49

The University of California (UC) proposes to enter into an agreement with a third-party developer (“the Developer”) to construct a six-story, 65,000 sq. ft. office building at the Lawrence Berkeley National Laboratory (LBNL, or “Berkeley Lab”). UC would execute a ground lease for the Site with the Developer. The Ground Lease would allow the Developer to finance, design, build, own, and maintain the building. UC would lease all of the space in the Office Building from the Developer for use by LBNL through a Rental Agreement.

LBNL would use the building for office and meeting space. The proposed office building would include no laboratory space, and no laboratory research would be

conducted in the building. The proposed Project would “decompress” existing staff from other areas of Berkeley Lab that are currently overcrowded or that do not meet LBNL workspace standards for office workers (i.e., 135 net square feet of primary office space per person). The proposed Project would not affect the population of the LBNL hill site—no new employees would be added to LBNL’s population as a result of this proposed Project.

The approximately 1.08-acre project site is currently undeveloped and is located on the hillside east of Cyclotron Road, near LBNL’s main entrance: the Blackberry Gate entrance on Cyclotron Road (see Figures 1 and 2). It is adjacent to the Building 50 complex to the east, Cyclotron Road and the Building 65 complex to the west, the main LBNL shuttle bus stop to the north, and an exterior stairway and undeveloped hillside further to the south. The proposed Building 49 would be occupied by up to approximately 240 current LBNL employees and would include approximately ten on-site service, visitor, and handicapped parking spaces. The proposed office building would be accessible from both Cyclotron Road at the entry floor level on the west side of the building, and from East Road (a.k.a. “Road E”) at the sixth floor level on the east side of the building.

Building 49 construction would take place from approximately Spring 2004 to Fall 2005. The Project would require excavation, construction of new infrastructure, and site re-vegetation. The site has no record of soil contamination or other past activities that might be indicative of contamination. Approximately 26,000 cubic yards of soil would be excavated from the site for construction of the proposed building. The site is primarily vegetated with eucalyptus trees and non-native grassland. No Federally or State listed species of concern are known to exist on the site.

Building 49 would be designed to complement the topography of the project site, as well as adjacent buildings and the predominant architectural style of LBNL (see Figures 3, 4, and 5). The Project would also be designed to provide short-range views of the Blackberry Canyon entrance area along Cyclotron Road, and long-range views (from its upper stories) of the University of California, Berkeley campus and adjacent areas, as well as the San Francisco Bay. With the possible exception of the uppermost floor(s), Building 49 would not be viewable from most off-site short, medium, and long-range views. The proposed building’s interior would be designed to promote interaction and collaboration between staff.

Building 49 would include a ground lease to the Developer who would own, finance, design, build, and manage the new office building. The University of California would lease the building from the Developer on a year-to-year basis for LBNL use. The University of California has confirmed that any potential for the building to be leased or occupied by any party other than the University of California or the Department of Energy is not reasonably foreseeable, and is therefore not a part of this California Environmental Quality Act (CEQA) review. In the unforeseeable event that the

University or the Department of Energy did not elect to lease the building, a separate CEQA review would be conducted for any alternative occupation of the building, as appropriate.

### Soil Disposal or Reuse

The proposed Project would generate up to approximately 26,000 cubic yards of excavated soil that would need to be disposed of away from the Building 49 project site. Several alternatives for soil disposal are under consideration and will be analyzed in the EIR. The Preferred Alternative, which would minimize off-site environmental impacts and simultaneously address existing parking shortages at LBNL, is to use the soil to construct a parking lot at LBNL. This parking lot, referred to herein as the “G-4 parking lot,” is identified as part of the proposed Project in the forthcoming analysis and is identified along with alternative soil disposal options, below.

### G-4 Parking Lot

The G-4 parking lot would serve the approximately 1,235 current occupants of the Building 50 and Building 70 complexes—the most densely populated area of the Lab. This area of LBNL is historically underserved for parking as the lot capacity of these building complexes is currently about 230 spaces. Staff currently working in the Building 50 and Building 70 complexes who cannot park in the immediate vicinity must seek parking in more remote areas and then walk or ride the LBNL shuttle to their destination buildings.

Under the proposed Project, the G-4 parking lot would be constructed on a largely undeveloped slope south of Building 70A and east of Cyclotron Road, approximately 700 feet southeast of the Building 49 site. The G-4 parking lot would be constructed in two stages. The first stage would use the 26,000 cubic yards of excess soil, expected to be provided from Building 49 excavation, as fill to create a level area on the project site slope. This would provide a surface parking lot (paved area) of 31,000 square feet with 95 parking stalls (see Figure 6). Expected completion of the first stage would be by Fall 2005. The second, optional stage would use additional excess soil of up to approximately 24,000 cubic yards that may be generated from future LBNL projects. This would increase the size of the level area and provide a total surface parking lot (paved area) of 39,000 square feet with a total of 120 parking stalls (see Figure 7). The second stage would be achieved if surplus soils requiring disposal were to become available at LBNL in the future. At this time, there are no specific projects planned or underway that would generate this fill. If a project(s) generating such fill materials is proposed in the future, the appropriate project-level CEQA analysis would be undertaken at that time to review the future project or project(s) proposed to generate that fill. If no sufficient quantity of soil requiring disposal becomes available in the near future, the G-4 parking lot would remain completed at the first stage. In either of the two stages of parking lot development, approximately the same footprint would be disturbed, and each would

require the same approximate improvement and extension of access Road E that runs west and south of Building 70A.

The slopes in the general Project vicinity incline eastward at an average rise of about 2:1 (horizontal to vertical). The site is part of the watershed area for the North Fork of Strawberry Creek. The site is bounded by the Building 70 complex to the north, Building 54 to the east, vegetated slopes to the south, and Cyclotron Road to the west. The upper portion of the site is a grassy plain that contains a few scattered trees (approximately one-dozen oak, pine, and eucalyptus) and is overlain by drainage pipes (hydraugers) that withdraw water from upland areas. The lower portion of the site is heavily vegetated with native and non-native grasses, a variety of trees—including oaks, pine, and eucalyptus—and heavy brush and some riparian vegetation.

There are two drainages on the site, sloping from east to west, that converge into a single drainage at a point at about the midpoint of the project site. The first drainage (Drainage A) originates from a series of hydraugers and drain pipes in the north-central portion of the site. After entering an underground, corrugated metal culvert, Drainage A exits the piping and follows the open topography approximately 150 feet to the west where it continues down the slope as an approximately 250-foot-long intermittent channel, comprising about 0.02 acres. The second drainage (Drainage B) originates upslope of a manhole in the eastern portion of the project site. Drainage B is a narrow channel fed by a drain pipe from an uphill parking lot. It is approximately 300 feet long and converges into Drainage A. The combined drainages appear to collect ephemeral-to-intermittent flows. When they occur, these flows are directed to the bottom of Drainage A, which terminates immediately east of Cyclotron Road into a subsurface storm sewer drainage system, which ultimately directs the flow into the North Fork of Strawberry Creek. While the lower part of the combined drainage (Drainage A) appears to support a small amount of scattered hydrophytic vegetation, the majority of the combined channels is unvegetated.

Construction of the proposed G-4 parking lot would require extending the upslope drainage pipes through the project area and terminating at the inlet to the storm system at Cyclotron Road. Extending these pipes, which currently feed the open drainages on the project site, would allow fill to be placed on the site so as to construct the G-4 parking lot. Wherever feasible, parking lot design would incorporate permeable pavement or similar state-of-the-art design features to minimize the addition of impervious surface to the area. Net flows through these drainages and into the storm sewer system along Cyclotron Road would remain essentially unchanged.

These project site drainages would likely be considered jurisdictional waterbodies subject to the Clean Water Act (CWA); the total area of jurisdictional waterbodies that may be filled by this Project would be approximately 0.02 – 0.03 acres. Consequently, this action is expected to require the following agency approvals: A CWA Section 404 permit from the US Army Corps of Engineers (COE), a CWA Section 401 water quality

certification from the San Francisco Regional Water Quality Control Board (RWQCB), and a streambed alteration agreement from the California Department of Fish and Game (CDFG). The three agencies adhere to a “no net loss” policy, which requires project proponents to avoid and minimize adverse impacts to jurisdictional waterbodies and to provide compensatory mitigation. LBNL would undergo this process concurrent with the CEQA process.

### **Project Need and Objectives**

The proposed Building 49 is intended to help address a substantial shortage of office space at LBNL that results in overcrowded work conditions for many staff. It would advance LBNL towards its target—as recommended by the General Services Administration—of 135 net square feet of primary office space per person. LBNL’s current sitewide space allocation is approximately 100 net square feet per person. As a third-party development, Building 49 would eliminate the need for scarce governmental funding otherwise necessary to construct such a building on site. It would provide a building that is in close proximity to where it would be most useful (i.e., near the Lab’s front entrance and near the Building 50 and Building 70 complexes), and it would be an opportunity to create a signature building that serves as a focal point to LBNL from the main gate at Blackberry Canyon. As opposed to using additional leased space off site, it would minimize inefficiencies of staff being separated from the main Berkeley Laboratory; it would the time and expense of frequent travel between off-site leased space and the main site in the everyday conduct of LBNL business.

The proposed G-4 parking lot is intended to reuse the soil that would be generated by the proposed Building 49 in a way that is productive, cost-effective, and minimizes environmental impacts to LBNL’s neighbors and the surrounding community. It would help address a shortage of available parking spaces at LBNL, particularly in the vicinity of the Building 50 and Building 70 complexes. It would minimize the distance that excavated soil would be transported and avoid approximately 4,300 one-way truck trips through Berkeley city streets. It would prevent the unnecessary filling of nearby landfills with clean, useable soil. By directing Building 49 soils to one fill site, it would reduce the cost and associated environmental impacts of seeking multiple areas on-site to fill. It could potentially provide additional soil reuse capacity of up to approximately 24,000 cubic yards for any future projects at LBNL that might otherwise require off-site transport and disposal of soils.

### **General Setting and Background**

The main LBNL site straddles the border between the cities of Berkeley and Oakland in Alameda County adjacent to and east of the UC Berkeley campus. Berkeley Lab is situated in the ridges and draws of Blackberry and Strawberry Canyons in the East Bay Hills. The area to the west includes the UC Berkeley campus, and UC Berkeley student and general residential neighborhoods; to the north are single-family residential neighborhoods, the Lawrence Hall of Science, and other rurally set recreational and

cultural facilities and parking uses; to the east and southeast are University-owned rural lands including designated a ecological study area and botanical garden; to the south and southwest are the University, recreational facilities, and single-family residential neighborhoods.

A portion of the main LBNL site, including the upper east canyon area, was included in the US Fish and Wildlife Service's designation of critical habitat for the Federally threatened Alameda whipsnake. This designation included major portions of Alameda and Contra Costa counties; LBNL lies on the periphery of this designation area. The designation was made in the year 2000 and was vacated by the U.S. District Court in 2003. Neither the Building 49 site nor the G-4 parking lot site lies within this formerly designated area

Lawrence Berkeley National Laboratory is a multi-program energy research laboratory operated and managed by the University of California (UC) under a contract with the U.S. Department of Energy (DOE). LBNL has operated at its present site since 1940. Its principal role for DOE is to conduct research on the broad range of fundamental sciences, energy, and environmental resources. Classified research is not conducted at LBNL.

LBNL is located on approximately 200 acres that are owned by the University of California and most of which are leased to the U.S. Department of Energy (DOE). DOE owns the facilities and structures that comprise LBNL, and it contracts out the management and operation of the National Laboratory to the University of California.

### **Consistency with the LRDP**

LBNL's current LRDP and LRDP EIR were approved in 1987. The EIR was later supplemented in 1992 and an addendum was prepared in 1997 (referred to hereafter as the "1987 LRDP EIR, as amended"). In the forthcoming Project EIR, the proposed Project will be analyzed for consistency with the current LRDP and 1987 LRDP EIR, as amended.

The proposed Project would be within the space and population levels anticipated in the current 1987 LBNL Long Range Development Plan (LRDP) and analyzed in the 1987 LRDP EIR, as amended. The proposed Building 49 would not present a land use conflict. Its site is underlain with utilities and it is adjacent to the existing Building 50 complex; it is buffered from the surrounding off-site view points and land uses by terrain, vegetation, and surrounding buildings. The parking lot would be constructed in an area identified as the West Strawberry Canyon Buffer-Zone Landscape Area in the 1987 LRDP. In addition, a portion of the parking lot site is on land formerly managed for the University by UC Berkeley—this site portion will be analyzed for consistency with the existing UC Berkeley LRDP because it is not specifically designated in LBNL's current 1987 LRDP. While the proposed parking lot would reduce the forested and riparian vegetation in a portion of this overall buffer area, it would continue to preserve views, consistent with the buffer zone, by avoiding construction of tall or obstructing structures.

The proposed Project would implement all applicable 1987 LRDP EIR, as amended, mitigation measures.

LBNL is undergoing a multi-year process to prepare a new LRDP and LRDP EIR. When adopted by The Regents of the University of California, these documents would guide future development at LBNL for approximately 20 years. It is expected that draft versions of these documents may be available for public review in late 2003 or early 2004. Although the current LRDP and 1987 LRDP EIR, as amended, are the applicable guiding documents for this proposed Project, it is anticipated that the proposed Project would be in completely consistent with the new LRDP and LRDP EIR.

### **III. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.


<input type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agriculture Resources	<input type="checkbox"/>	Air Quality
<input checked="" type="checkbox"/>	Biological Resources	<input type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Geology/Soils
<input type="checkbox"/>	Hazards & Hazardous Materials	<input checked="" type="checkbox"/>	Hydrology/Water Quality	<input type="checkbox"/>	Land Use/Planning
<input type="checkbox"/>	Mineral Resources	<input type="checkbox"/>	Noise	<input type="checkbox"/>	Population/Housing
<input type="checkbox"/>	Public Services	<input type="checkbox"/>	Recreation	<input type="checkbox"/>	Transportation/Traffic
<input type="checkbox"/>	Utilities/Service Systems	<input checked="" type="checkbox"/>	Mandatory Findings of Significance		

**IV. DETERMINATION: (To be completed by the Lead Agency)**

On the basis of the initial evaluation that follows:

\_\_\_\_\_ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

\_\_\_\_\_ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

 \_\_\_\_\_ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

\_\_\_\_\_ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. A TIERED ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

\_\_\_\_\_ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental document is required. FINDINGS consistent with this determination will be prepared.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
For

**V. EVALUATION OF ENVIRONMENTAL FACTORS**

## V.

## EVALUATION OF ENVIRONMENTAL FACTORS

### Initial Study Checklist

	Will be analyzed in EIR	No additional analysis needed
<b>1. AESTHETICS</b> — Would the Project:		
<b>a) Have a substantial adverse effect on a scenic vista?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Although the upper portion of Building 49 might be intermittently visible from some off-site locations, neither site (Building 49 nor G-4 parking lot) is expected to be visible from off-site scenic vistas.		
<b>b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Neither site is readily visible from a State scenic highway.		
<b>c) Substantially degrade the existing visual character or quality of the site and its surroundings?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Both Building 49 and G-4 parking lot construction would remove trees and change the visual character of the immediate sites; however, both sites are adjacent to heavily developed areas.		
<b>d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Both Building 49 and the G-4 parking lot would introduce new sources of light and glare to their immediate sites; however, new construction would conform to design guidelines and visual quality mitigation measures identified in the 1987 LRDP EIR, as amended, and both would be adjacent to existing light and glare sources. Neither is expected to be noticeable to off-site viewpoints.		
<b>e) Exceed an applicable LRDP or Program EIR standard of significance?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
With the implementation of the mitigation measures set out in the Laboratory's LRDP EIR, as amended, , as well as project-specific mitigation measures if required, the Laboratory expects that no applicable standard of significance would be exceeded.		

<b>Will be analyzed in EIR</b>	<b>No additional analysis needed</b>
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Although the upper portion of Building 49 might be intermittently visible from some off-site locations, neither site would have a substantial adverse effect on a scenic vista or from a scenic road. The Building 49 roofline would be adjacent to and well below the building mass of the Building 50 complex to the east. In conformance with mitigation measures set out in the Laboratory's LRDP EIR, as amended, the building design and the construction materials used would reduce potential impacts of light and glare, and the building site would be landscaped. The G-4 parking lot site slopes would be revegetated and contoured to restore a natural appearance. Although several trees would be removed from the area downhill of the proposed parking lot, key screening trees would remain in that area of the Lab in addition to proposed revegetation.

**2. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the Project:**

**a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

☐
☒

The LBNL site contains no agriculturally-used lands, nor any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

**b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?**

☐
☒

See above. The project sites are not zoned for agricultural use, and no Williamson Act contracts would be affected.

**c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?**

☐
☒

See above. The Project would not involve any changes in the environment that could result in the conversion of farmland to nonagricultural use.

**d) Exceed an applicable LRDP or Program EIR standard of significance?**

☐
☒

No applicable standard of significance would be exceeded.

<b>Will be analyzed in EIR</b>	<b>No additional analysis needed</b>
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There are no agricultural resources at the LBNL site. The proposed Project would not result in the conversion of agricultural resources to non-agricultural use, conflict with existing zoning, or otherwise result in a significant environmental effect to designated agricultural resources. No impact would occur and no further analysis is required. Agricultural resources will be focused out from analysis in the EIR.

**3. AIR QUALITY — Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:**

**a) Conflict with or obstruct implementation of the applicable air quality plan?**



The Bay Area Air Quality Management District (BAAQMD) air basin is designated as a State non-attainment area for PM<sub>10</sub> (particulate matter with a nominal diameter of 10 microns or less), and as a Federal and State non-attainment area for ozone precursors. Construction of both elements of the proposed Project would produce temporary emissions of these pollutants, although in quantities expected to be well below their applicable BAAQMD s CEQA Guidelines thresholds of significance. Such increases would be very minor on a regional level. The Laboratory would use standard emission control and reduction measures, including measures to suppress dust during construction.

Operation of Building 49 would not require an emergency generator (as it would rely on the existing permitted generator used by the Building 50 complex), but would likely used gas-powered boilers for water heating. All necessary permits would be obtained through the BAAQMD, as appropriate.

**b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?**



See above. Estimated emissions from the Project are expected to be below BAAQMD CEQA Guidelines thresholds for all criteria pollutants. No laboratory research would take place in the building, and thus there would be no laboratory emissions of toxic air contaminants or radionuclides.

Although the BAAQMD air basin is designated as a non-attainment area for the State ozone and PM<sub>10</sub> standards, and a non-attainment area for the Federal ozone standard, any increased contribution to those pollutant emissions resulting from the proposed Project likely would be very minor on a regional level. Local PM<sub>10</sub> emissions due to construction would be controlled using applicable BAAQMD control measures, and likely would be less than significant based on that agency's criteria. No significant contribution to an air quality standard violation would be expected.

**c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?**



	Will be analyzed in EIR	No additional analysis needed
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The BAAQMD air basin is designated as a non-attainment area for the State ozone and PM<sub>10</sub> standards, and a non-attainment area for the Federal ozone standard, so any increased contribution of these emissions to the region would constitute an adverse cumulative impact. However, LBNL's expected increases in PM<sub>10</sub> and ozone precursor emissions as a result of the proposed Project would be relatively minor and would not likely pose a cumulatively considerable net increase.

**d) Expose sensitive receptors to substantial pollutant concentrations?**



It is expected that no substantial pollutant concentrations would be created by the Project that would affect any known nearby sensitive receptors.

**e) Create objectionable odors affecting a substantial number of people?**



Ongoing activities from the proposed Project are not expected to create nuisance or objectionable odors affecting substantial numbers of people, particularly people off-site. Actions that might create objectionable odors include asphalt-laying during construction activities. Such odors would be temporary and likely noticeable to a small number of off-site people, and then only under limited meteorological conditions.

**f) Exceed an applicable LRDP or Program EIR standard of significance?**



With the implementation of the mitigation measures set out in the Laboratory's LRDP EIR, as amended, as well as project-specific mitigation measures if required, the Laboratory expects that no applicable air quality standard of significance would be exceeded.

Temporary construction-related air impacts would occur at both construction sites and would result from construction vehicle exhaust and dust from earth movement. Operational impacts from Building 49 would be negligible, as the proposed Project would not generate any new automobile commute trips. Minor emissions from Building 49 gas-powered boilers and other building systems may occur. Operational impacts from Parking Lot G-4 would be minimal, as the lot would be intended to serve existing LBNL drivers. Marginal reductions in air impacts could occur from Building 50 Complex and Building 70 Complex drivers being able to find parking more easily without having to drive around the LBNL site looking for available parking.

**4. BIOLOGICAL RESOURCES -- Would the project:**

**a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**



	Will be analyzed in EIR	No additional analysis needed
<p>Critical Habitat for the Federally threatened Alameda whipsnake was designated by the US Fish and Wildlife Service (USFWS) in 2000. This designated habitat area included thousands of acres in Alameda and Contra Costa counties, and included an area nearby to the proposed Project sites (although this habitat designation was successfully challenged in a recent court case, LBNL will proceed with the analysis as if it were in place). It is not expected that this Project would impact the Federally threatened Alameda whipsnake: neither site is located in the US Fish and Wildlife Service-designated critical habitat area<sup>1</sup>, neither site contains the characteristic features of classic whipsnake habitat, and there have never been reported sightings of this species anywhere within LBNL boundaries. Nevertheless, for the purposes of the forthcoming analysis, it will be assumed that either site could be used as a dispersal corridor for the Alameda whipsnake from habitat areas in the region and that the occasional presence of the species on either site is possible.</p>		
<p><b>b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?</b></p> <p>The proposed G-4 parking lot would fill an area that includes some riparian vegetation. A small, artificial pool (less than 0.01 acres) that is fed by drain pipes and hydraugers exists as the origin point of Drainage A. LBNL will consult with and apply for permits with the Army Corps of Engineers, the San Francisco Regional Water Quality Control Board, and the California Department of Fish and Game regarding these resources, as appropriate. Although it is expected that impacts identified through the analysis can be mitigated through the permitting process with these agencies, this will be considered a potentially significant impact until such conclusions can be fully analyzed and confirmed.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p><b>c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?</b></p> <p>See above. While both Drainage A and Drainage B are generally devoid of vegetation, some scattered hydrophytic vegetation exists at the lower portion of Drainage A. The G-4 parking lot site would fill in this vegetation. The total area of jurisdictional waterbodies that would be filled by this Project is estimated to be approximately 0.02 — 0.03 acres. This action would be subject to Federal and State permitting. Due to the small size of the area affected and the lack of any known threatened or endangered species there, the Laboratory believes that this would not create a substantial adverse effect on wetlands. Although it is expected that impacts identified through the analysis can be mitigated through the permitting process with these agencies, this will be considered a potentially significant impact until such conclusions can be fully analyzed and confirmed.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<sup>1</sup> On May 9, 2003, the U.S. District Court for the Eastern District of California vacated the Fish and Wildlife's Service's Final Rule designating critical habitat for the Alameda Whipsnake. Nevertheless, for the purposes of this analysis, LBNL conservatively recognizes the boundaries of the former critical habitat area in its consideration of possible impacts to biological resources.

	Will be analyzed in EIR	No additional analysis needed
<b>d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The sites do not serve as a known migratory corridor or nursery site to any native resident or migratory species. This issue will be further examined in the EIR analysis.		
<b>e) Conflict with any local applicable policies protecting biological resources?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Berkeley Lab is not aware of any local applicable policies pertaining to biological resources on the project sites, or the LBNL site.		
<b>f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other applicable habitat conservation plan?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
No such plans have been adopted for LBNL site lands.		
<b>g) Exceed an applicable LRDP or Program EIR standard of significance?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
With the implementation of the mitigation measures set out in the Laboratory's LRDP EIR, as amended, as well as project-specific mitigation measures that may be identified through the EIR analysis, by appropriate resource agencies, or through the permitting process, no applicable standard of significance is expected to be exceeded by the proposed Project. would be exceeded. Nevertheless, this will be considered a potentially significant impact until such conclusions can be fully analyzed and confirmed.		

The proposed G-4 parking lot would fill an area with possible jurisdictional drainages and that includes some riparian vegetation. A small, artificial pool (less than 0.01 acres) that is fed by drain pipes and hydraugers exists as the origin point of Drainage A. While both Drainage A and Drainage B are generally devoid of vegetation, some scattered hydrophytic vegetation exists at the lower portion of Drainage A. LBNL will consult with and apply for permits with the Army Corps of Engineers, the San Francisco Regional Water Quality Control Board, and the California Department of Fish and Game regarding these resources, as appropriate. Although it is expected that impacts identified through the analysis can be mitigated through the permitting process with these agencies, this will be considered a potentially significant impact until such conclusions can be fully analyzed and confirmed.

Critical Habitat for the Federally threatened Alameda whipsnake was designated by the US Fish and Wildlife Service (USFWS) in 2000. This designated habitat area included thousands of acres in Alameda and Contra Costa counties, and included an area nearby to the proposed Project sites (although this habitat designation was successfully challenged in a recent court case, LBNL will proceed with the analysis as if it were in place). It is not expected that this Project would impact the Federally threatened Alameda whipsnake. Nevertheless, for the purposes of the forthcoming analysis, it will be assumed that either site could be used as a dispersal corridor for the Alameda whipsnake from habitat areas in the region and that the occasional presence of the species on either site is possible.

	Will be analyzed in EIR	No additional analysis needed
<b>5. CULTURAL RESOURCES -- Would the Project:</b>		
<b>a) Cause a substantial adverse change in the significance of a historical resource as defined in /15064.5?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
No known or suspected historical resources exist at the proposed Project locations.		
<b>b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to /15064.5?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
No known or suspected archaeological resources exist at the proposed Project locations.		
<b>c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
No known or suspected paleontological resources or unique geologic features exist at the proposed Project locations.		
<b>d) Disturb any human remains, including those interred outside of formal cemeteries?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
No known or suspected human remains exist at the proposed Project locations.		
<b>e) Exceed an applicable LRDP or Program EIR standard of significance?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
With the implementation of the mitigation measures set out in the Laboratory's LRDP EIR, as amended, as well as project-specific mitigation measures if required, the Laboratory expects that no applicable standard of significance would be exceeded.		
<p>There are no known or expected archaeological or historical sites in either of the two project excavation and construction areas. As part of previous investigations, surface examinations for cultural resources were made of undeveloped lands at Berkeley Lab, although some of the area that would be used for the G-4 parking lot is covered with heavy brush and has not been closely examined. If an unexpected encounter with a subsurface cultural resource such as an archaeological midden were to occur, LBNL would enact appropriate mitigation as part of the proposed Project.</p>		
<b>6. GEOLOGY AND SOILS -- Would the Project:</b>		
<b>a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</b>		
<b>i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Will be analyzed in EIR	No additional analysis needed
Both Building 49 and the G-4 parking lot would be constructed on sloped sites within the Alquist Priolo zone, an area extending 150 meters (about 500 feet) on both sides of major active faults, in this case, the Hayward Fault. To the extent that personnel would relocate to these areas from areas more distant from the fault, it is possible that their exposure to seismic risks would marginally increase. The Project would meet applicable requirements for structures erected in this zone, and the structures would be designed in conformance with the University's seismic safety standards and other applicable Laboratory standards, which exceed California Building Code requirements. Engineering and safety analyses of LBNL structures indicate that, in a large seismic event, on-site buildings may be expected to experience structural and non-structural damage but to retain sufficient structural integrity such that personnel could evacuate.		
<b>ii) Strong seismic ground shaking?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
See above.		
<b>iii) Seismic-related ground failure, including liquefaction?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
See above.		
<b>iv) Landslides?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The proposed Project sites are located on steep slopes. To the extent that personnel would relocate to these areas from areas located on more level ground, it is possible that their exposure to landslide-related risks would marginally increase, especially during seismic events. See response to 6(a)(i), above. This would not be expected to be significant.		
<b>b) Result in substantial soil erosion or the loss of topsoil?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
As it would be designed and constructed in accordance with management practices to minimize erosion, the Project would not result in substantial soil erosion. Topsoil within the footprint of the Project would be developed, or covered with engineered fill and paved or reseeded.		
<b>c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
See (a)(i) and (a)(iv), above.		
<b>d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Building 49 would be constructed on a geotechnically engineered foundation and footing system, and the proposed G-4 parking lot would be located on engineered fill. The Projects would not be located on expansive soils.		

	Will be analyzed in EIR	No additional analysis needed
<b>e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Like the rest of the LBNL site, Building 49 would rely on the East Bay Municipal Utility District sanitary sewer system for wastewater disposal.

<b>f) Exceed an applicable LRDP or Program EIR standard of significance?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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With the implementation of the mitigation measures set out in the Laboratory's LRDP EIR, as amended, as well as project-specific mitigation measures if required, the Laboratory expects that no applicable standard of significance would be exceeded.

Both the Building 49 and the G-4 parking lot would be constructed on sloped sites within the Alquist Priolo zone, an area extending 150 meters (about 500 feet) on both sides of major active faults, in this case, recognized to be nearby to the Hayward Fault. Both project components would be designed to the University's strict standards for earthquake safety, which exceed the building code requirements.

A Fault Rupture Hazard Investigation was prepared for the Building 49 Project in August 2002. Three trenches were dug across the site in order to study subsurface conditions for the purpose of determination if any fault-related features were present. The Investigation concluded that there are no fault-related features found to underlie the project site and that no fault-related features would impact the proposed Project. In addition, a preliminary geotechnical feasibility study has been prepared for the proposed G-4 parking lot. This study includes design guidance and finds that the proposed parking lot could be feasibly constructed in its currently proposed location.

## 7. HAZARDS AND HAZARDOUS MATERIALS — Would the Project:

<b>a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Building 49 would be used as office and meeting space only; no laboratory research or storage, handling, or use of laboratory chemicals would take place within the building. The building would include no laboratories or fume hoods. Construction of parking lot G-4 would not increase the day-to-day use of hazardous materials at the Laboratory.

<b>b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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See above. Also, there is no history of hazardous materials processing, storage, or disposal on either the Building 49 or the G-4 parking lot project site.

<b>c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	Will be analyzed in EIR	No additional analysis needed
No acutely hazardous materials, substances, or waste would be handled at the project locations. Emissions associated with the Project would be minimal and would involve construction vehicle emissions, and building maintenance system emissions such as those from boilers. (An emergency generator would not be included in this Project as building 49 would be connected to the existing emergency generator system for the Building 50 Complex.)		
<b>d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The project sites are not located on any list of hazardous materials sites.		
<b>e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the project area?</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
The project is not located within two miles of an airport.		
<b>f) For a project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the project area?</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
The project is not located within two miles of a private airstrip.		
<b>g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The project would not impair or interfere with the Laboratory's emergency response and evacuation planning. Both new facilities would be incorporated into LBNL's existing emergency response and evacuation plans.		
<b>h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The project sites are on sloped terrain and adjacent to both built-up areas and wildlands. The Laboratory as a whole is subject to dry, warm conditions and occasional high winds during the fire season. Fire hazards would be minimal as the building would meet all required safety standards and fire code, and the building would be surrounded up and downslope by roadways. LBNL has considerable on-site fire suppression capabilities and its own fire department, maintains mutual assistance arrangements with neighboring fire districts, and has implemented a fuel reduction/vegetation management program that has greatly reduced the risk of wildland fire in the vicinity of the Lab.		
<b>i) Exceed an applicable LRDP or Program EIR standard of significance?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Will be analyzed in EIR	No additional analysis needed
With the implementation of the mitigation measures set out in the Laboratory's LRDP EIR, as amended, as well as project-specific mitigation measures if required, the Laboratory expects that no applicable standard of significance would be exceeded.		
<p>Building 49 would be used as office and meeting space only; no laboratory research or storage, handling, or use of laboratory chemicals would take place within the building. The building would include no laboratories or fume hoods. Emissions associated with the Project would be minimal and would involve construction vehicle emissions, and building maintenance system emissions such as those from boilers. An emergency generator would not be included in this Project as building 49 would be connected to the existing emergency generator system for the Building 50 Complex.</p> <p>Fire hazard would be minimal as the building would meet all required safety standards and fire code, and the building would be surrounded up and downslope by roadways.</p>		
<b>8. HYDROLOGY AND WATER QUALITY -- Would the Project:</b>		
<b>a) Violate any water quality standards or waste discharge requirements?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The project would not be expected to violate any water quality standards or waste discharge requirements; it is not expected to affect LBNL's existing wastewater discharge permit, although these issues will be examined in the EIR and with the appropriate resource agencies, as needed.		
<b>b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Groundwater is not a major water source in the area. LBNL does not use on-site groundwater, there are no groundwater production wells on-site or nearby that support existing or planned land uses.		
The proposed G-4 parking lot would add between 31,000 and 39,000 square feet of partially pervious to impervious surface to the project site, and the proposed Building 49 would add an additional approximately 47,000 square feet of new impervious surface area.		
<b>c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Will be analyzed in EIR	No additional analysis needed
<p>While the proposed Project would result in the alteration of existing drainage patterns on the G-4 parking lot site, this would not result in substantial erosion or siltation either on or off the site. Most of the flows through the project site originate from enclosed pipes and culverts; these lead to another piped storm drain system beginning at Cyclotron Road. By replacing the stretch of open drainages on the project site with additional enclosed drainage, and by allowing the normal runoff of stormwaters not collected in the aforementioned drain system to the main collection point at Cyclotron Road, the proposed Project would not be expected to significantly alter the amount of flow entering into the downstream storm drain system. Although this is not expected to be significant, this issue will be further examined and a determination made in the EIR and in the coordination with the appropriate permitting agencies, as needed.</p>		
<p><b>d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?</b></p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>See above. Drainage off-site would be facilitated by an engineered collection and drainage system. While the increase in impervious surface for both Building 49 and the G-4 parking lot may increase the amount and speed of stormwater through the local storm drain system and ultimately into the North Fork of Strawberry Creek, these changes would be marginal and should not be expected to cause flooding.</p>		
<p><b>e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?</b></p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>See above. The G-4 parking lot would include appropriate mitigation (e.g., oil/water separators, etc.) to address potential water quality impacts, as appropriate.</p>		
<p><b>f) Otherwise substantially degrade water quality?</b></p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>See above. It is not expected that water quality would be substantially degraded by the proposed Project.</p>		
<p><b>g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?</b></p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>The project does not involve any placement of housing and does not include any known flood areas.</p>		
<p><b>h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?</b></p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>See above. The project would not place structures within a 100-year flood hazard area.</p>		
<p><b>i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?</b></p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Will be analyzed in EIR	No additional analysis needed
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See above. The project would not expose persons or structures to a significant risk of loss due to flooding. There are no upslope dams or levees in the project vicinity.

**j) Inundation by seiche, tsunami, or mudflow?**



The project would not be in an area subject to these hazards.

**k) Exceed an applicable LRDP or Program EIR standard of significance?**



With the implementation of the mitigation measures set out in the Laboratory's LRDP EIR, as amended, as well as project-specific mitigation measures if required, the Laboratory expects that no applicable standard of significance would be exceeded.

Construction of the G-4 parking lot would require the extension of drainage pipes through the project site so that the site may be filled with 26,000 cubic yards and up to 50,000 cubic yards of soil excavated from the Building 49 site. Filling this site would cover two existing drainages that may constitute up to 0.03 acres of jurisdictional waters. In addition, the proposed G-4 parking lot would add between 31,000 and 39,000 square feet of impervious surface to the project site, and the proposed Building 49 would add an additional approximately 47,000 square feet of new impervious surface area. Although it is expected that impacts identified through the analysis can be mitigated through the permitting process with the appropriate regulatory agencies, this will be considered a potentially significant impact until such conclusions can be fully analyzed and confirmed. Although it is generally unfeasible to use semi-pervious surface for parking on a steep fill such as proposed for the G-4 parking lot due to soil stability issues, LBNL will investigate the possibility of using such measures as part of the proposed Project.

**9. LAND USE AND PLANNING - Would the Project:**

**a) Physically divide an established community?**



The proposed Project would not divided an established community.

**b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the LRDP, general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?**



The principal applicable land use planning document for Laboratory projects is Berkeley Lab's 1987 Long Range Development Plan. The proposed Project would be consistent with the population and space projections identified in the 1987 LRDP and analyzed in the 1987 LRDP EIR, as amended.

**c) Conflict with any applicable habitat conservation plan or natural community conservation plan?**



The project is not expected to conflict with any applicable conservation plan.

**d) Exceed an applicable LRDP or Program EIR standard of significance?**



Will be analyzed in EIR	No additional analysis needed
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With the implementation of the mitigation measures set out in the Laboratory's LRDP EIR, as amended, as well as project-specific mitigation measures if required, the Laboratory expects that no applicable standard of significance would be exceeded.

The proposed Project would be consistent with the population and space projections identified in the 1987 LRDP and analyzed in the 1987 LRDP EIR, as amended. Building 49 would be adjacent to a large-scale complex of similar buildings. The G-4 parking lot would be adjacent to Building 70A and would not obstruct views either on or off-site. However, construction of the G-4 parking lot would require the removal of trees from the site, some of which may have screening value. In addition, parking lot construction would reduce the forested and riparian vegetation in the zone.

#### 10. MINERAL RESOURCES -- Would the Project:

**a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

☐
☒

No mineral resources have been identified in the vicinity of the proposed locations for Building 49 and the G-4 parking lot.

**b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?**

☐
☒

The proposed Project would not result in the loss of availability of a locally-important mineral resource recovery site.

**c) Exceed an applicable LRDP or Program EIR standard of significance?**

☐
☒

No applicable standard of significance would be exceeded.

No mineral resources have been identified in the vicinity of the proposed locations for Building 49 and the G-4 parking lot, and the proposed Project would not result in the loss of availability of such resources. No impact would occur and no further analysis is required. Mineral resources would not be affected by the proposed Project and would be focused out of the EIR analysis.

#### 11. NOISE — Would the Project result in:

**a) Exposure of persons to or generation of noise levels in excess of standards established in any applicable plan or noise ordinance, or applicable standards of other agencies?**

☒
☐

Noise meter testing simulating project activities will be conducted to determine whether applicable noise ordinances would be exceeded due to project construction or operational activities at either site.

**b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?**

☒
☐

	Will be analyzed in EIR	No additional analysis needed
Based on the activities that would take place and the distance of the site from offsite receptors, the project is not expected to create excessive groundborne vibration or noise. No blasting or pile driving would be part of this Project.		
<b>c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the Project?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The Project would not create a substantial permanent or periodic increase in ambient noise levels. Ambient noise in the area of the Building 49 construction site is high throughout the work day, due to the relatively heavy traffic of automobiles, motorcycles, and trucks over Cyclotron Road and the frequent (every five minutes or so) operation of LBNL's shuttles at its main shuttle stop adjacent to Building 65. Project operational noise would be minimal and generally not noticeable compared to ambient surrounding noises. It, along with automobiles using the G-4 parking lot, would tend to consist of Building 49 HVAC and building noise.		
<b>d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the Project?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
See above. Temporary noise would increase due to Project related excavation and construction activities, although these might not be substantial to off-site receptors given the ambient noise in the area. These will be modeled for the EIR using noise meter testing.		
<b>e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the project area to excessive noise levels?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The project is not within an airport use plan or within two miles of a public airport.		
<b>f) For a project within the vicinity of a private airstrip, would the Project expose people residing or working in the project area to excessive noise levels?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The project is not within the vicinity of a private airstrip.		
<b>g) Exceed an applicable LRDP or Program EIR standard of significance?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
With the implementation of the mitigation measures set out in the Laboratory's LRDP EIR, as amended, as well as project-specific mitigation measures if required, the Laboratory expects that no applicable standard of significance would be exceeded.		

<b>Will be analyzed in EIR</b>	<b>No additional analysis needed</b>
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Ambient noise in the area of the Building 49 construction site is relatively high throughout the work day, due to the relatively heavy traffic of automobiles, motorcycles, and trucks over Cyclotron Road and the frequent (every five minutes or so) presence of LBNL's shuttles at its main shuttle stop adjacent to Building 65. Project operational noise would be minimal and generally not noticeable compared to ambient surrounding noises. It would tend to consist of Building 49 HVAC and building noise, along with automobiles using the G-4 parking lot.

Project construction would take place in the southwestern portion of LBNL. The Building 49 project site is approximately 650 feet from the nearest UC Berkeley student dormitories and private housing, while the G-4 parking lot is 750 feet from the nearest dormitories and approximately 1,000 feet from the nearest private residences. In both cases, intervening terrain, trees, and buildings would likely dampen noise energy before it were to reach many of these receptors.

Noise meter testing simulating project activities will be conducted to determine whether applicable noise ordinances would be exceeded due to Project construction or operational activities at either site.

## 12. POPULATION AND HOUSING -- Would the Project:

**a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

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The proposed Project would not create new housing. It would decompress space for existing staff positions and would not result in an increase in staff at LBNL, and thus would not create a demand for new housing. The project's extension of on-site roads and infrastructure would not induce population growth because these would exclusively serve staff and visitors to the Laboratory.

**b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**

☐
☒

The project would not displace any existing housing.

**c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

☐
☒

The project would not displace any residential housing or persons from the area.

**d) Exceed an applicable LRDP or Program EIR standard of significance?**

☐
☒

No applicable standard of significance would be exceeded.

The proposed Project would not induce population growth, displace housing, or displace people. No impact would occur and no further analysis is required. Population and housing issues would not be affected by the proposed Project and would be focused out of the EIR analysis.

Will be analyzed in EIR	No additional analysis needed
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**13. PUBLIC SERVICES**

**a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:**

**Fire protection?**

As with any new office building, fire protection services would be required for the proposed Building 49. However, the building would be designed in conformance with Fire Code standards, and would not present any unusual fire hazards. No increase in fire protection staffing would be expected.

**Police protection?**

As with any new office building, police protection services would be required for Building 49. There are no reasonably foreseeable crime or other public safety issues associated with the project, and no increase in police protection staffing would be required.

**Schools?**

No increase in staff would result from the project, and there would be no impacts upon schools.

**Parks?**

No increase in staff would result from the project, and there would be no impacts upon parks.

**Other public facilities?**

No increase in staff would result from the project, and there would be no expected impacts upon other public facilities.

**b) Exceed an applicable LRDP or Program EIR standard of significance?**



With the implementation of the mitigation measures set out in the Laboratory's LRDP EIR, as amended, as well as project-specific mitigation measures if required, the Laboratory expects that no applicable standard of significance would be exceeded.

Will be analyzed in EIR	No additional analysis needed
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The proposed Project would cause a marginal increase in demand for some public services: a new building would present a new location for which police and fire protection would have to be provided. However, the proposed Building 49 would be built to the latest fire, earthquake, and safety codes, and would be located in close proximity to site security services. For the most part, because the proposed Project would not increase the population at LBNL, demand for public services would essentially remain the same, particularly for population-driven demands such as schools, parks, recreational facilities, and other public services.

#### 14. RECREATION --

**a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

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The proposed Project would not result in an increase in the number of staff at LBNL, or otherwise create an effect that could increase the use of existing parks and other recreational facilities.

**b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

☐
☒

The project does not include recreational facilities nor require the construction or expansion of such facilities.

**c) Exceed an applicable LRDP or Program EIR standard of significance?**

☐
☒

No applicable standard of significance would be exceeded.

	Will be analyzed in EIR	No additional analysis needed
The project would not affect recreational resources. No impact would occur and no further analysis is required. Recreational resources would not be affected by the proposed Project and would be focused out of the EIR analysis		

**15. TRANSPORTATION/TRAFFIC -- Would the Project:**

**a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?**



Because the proposed Project would not increase population at LBNL, no substantial increase in traffic would result, and traffic and traffic patterns should remain generally unchanged by the Project. Because both Building 49 and the G-4 parking lot would be near the main Blackberry Gate entrance to LBNL, it is possible that the proposed Project could cause a small redistribution of commute traffic from its rear gates (Grizzly Peak and Strawberry gates) to the Blackberry gate entrance. Currently, a little over half of daily automobile trips to LBNL use the Blackberry gate entrance, the remainder are divided fairly evenly between the Grizzly Peak and Strawberry Gates. This redistribution, if it does occur, would not result in a significant impact upon local roadways.

A temporary increase in construction-related traffic would occur between Spring 2004 and Fall 2005; these increases would not be substantial. By electing to reuse Building 49 excavated soil on-site rather than to ship soil off-site for disposal, the proposed G-4 parking lot Project would prevent an estimated 4,300 one-way truck trips through Berkeley City streets.

**b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?**



See above. Cumulative impacts will be analyzed in the Environmental Impact Report.

**c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?**



No effect on air traffic patterns would occur.

**d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**



No hazards due to a design feature or incompatible uses would increase.

**e) Result in inadequate emergency access?**



Emergency access/egress would be adequately handled by existing roadways and by the short road extension planned as part of the G-4 parking lot.

	Will be analyzed in EIR	No additional analysis needed
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**f) Result in inadequate parking capacity?**

By providing up to 120 additional parking spaces near the currently underserved Building 50 and Building 70 complexes, the project would improve the Lab's parking capacity in the area. In addition, the proposed Project could improve traffic and parking patterns and decrease the amount of time drivers spend searching for parking within the LBNL site.

**g) Conflict with applicable policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?**

No conflict with applicable alternative transportation policies, plans, and programs would occur. The increased parking capacity that would be provided in the vicinity of the Building 50 and Building 70 complexes would be consistent with the Laboratory's parking ratio planning goals.

**h) Exceed an applicable LRDP or Program EIR standard of significance?**

With the implementation of the mitigation measures set out in the Laboratory's LRDP EIR, as amended, as well as project-specific mitigation measures if required, the Laboratory expects that no applicable standard of significance would be exceeded.

Because the proposed Project would not increase population at LBNL, traffic and traffic patterns should remain generally unchanged by the Project. By providing up to 120 additional parking spaces near the currently underserved Building 50 and Building 70 complexes, the proposed Project could improve traffic and parking patterns and decrease the amount of time drivers spend searching for parking within the LBNL site.

A temporary increase in construction-related traffic would occur between Spring 2004 and Fall 2005; these increases would not be substantial. By electing to reuse Building 49 excavated soil on-site rather than to ship soil off-site for disposal, the proposed G-4 parking lot Project would prevent an estimated 4,300 one-way truck trips through Berkeley City streets.

**16. UTILITIES AND SERVICE SYSTEMS — Would the Project:****a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?**

As staff would not increase as a result of the project, and the activities that would take place in Building 49 would not generate significantly greater quantities of wastewater than is presently generated by the staff and activities that would relocate there from other locations, the project would not have a significant effect on wastewater generation and therefore would not cause Berkeley Lab wastewater to exceed treatment requirements.

**b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

	Will be analyzed in EIR	No additional analysis needed
See above. Due to these factors, the project would not require the construction or new treatment facilities or the expansion of existing ones.		
<b>c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
LBNL flows to storm sewers would likely increase marginally due to an overall decrease in permeable area. This increase would not be expected to require the construction of new facilities or the expansion of existing ones.		
<b>d) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Existing water supplies are expected to meet all reasonably foreseeable project needs.		
<b>e) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
See above. It is expected that the East Bay Municipal Utility District will have adequate capacity to serve the marginal increase in Project wastewater treatment demand.		
<b>f) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
See above. By not increasing the number of people at Berkeley Lab, the proposed Project would not substantially change the Lab's solid waste generation. The quantity of solid waste that would be generated by the proposed Project is expected to be within the capacities of the landfills currently serving Berkeley Lab.		
<b>g) Comply with applicable federal, state, and local statutes and regulations related to solid waste?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The project will comply with all applicable solid waste requirements.		
<b>h) Exceed an applicable LRDP or Program EIR standard of significance?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
With the implementation of the mitigation measures set out in the Laboratory's LRDP EIR, as amended, as well as project-specific mitigation measures if required, the Laboratory expects that no applicable standard of significance would be exceeded.		

Will be analyzed  
in EIRNo additional  
analysis needed

LBNL flows to storm sewers would likely increase marginally due to an overall decrease in permeable area. In regard to other facility-specific utility demand, electrical and energy use would increase commensurate with lighting, heating/cooling, and otherwise maintaining new office space.

Because the proposed Project would not increase the population at LBNL, however, demand for most utilities services would not substantially increase. This would be most evident with per capita usage of utilities tied to individual use (e.g., individual computer use, water consumption, wastewater generation, solid waste generation, etc.), which would not change whether the individuals continued to work in existing and overcrowded offices, or in the proposed new building.

## 17. MANDATORY FINDINGS OF SIGNIFICANCE --

**a) Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?**



The proposed Project would replace relatively undeveloped areas with a building and a parking lot, although these areas are contiguous to heavily developed areas. Several trees, including oaks, and plants would be removed along with an area of open drainage expected to be jurisdictional water bodies. Although not in former Federally designated critical habitat for the Alameda whipsnake, the project area could possibly be used as a dispersal area for the species.

**b) Does the Project have impacts that are individually limited, but cumulatively considerable? (Cumulatively considerable means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?**



The proposed Project would result in the loss of pervious surface on the project sites. This will be examined along with other projects in the area. It is not expected that any other cumulatively considerable impacts would occur.

**c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**



It is not expected that the proposed Project would cause direct or indirect substantial adverse effects on human beings.

The proposed Project would reduce vegetation including oak trees, some riparian vegetation, and possibly some screening trees in the G-4 parking lot area. It would divert two jurisdictional drainages by filling the site with soil and extending drainage pipes, which are the source of the drainage flows, through the site to reach the existing underground storm drain system that drains the site at Cyclotron Road. It would increase impermeable surface area at both the Building 49 and G-4 parking sites. Without proper mitigation, Project construction would have the potential to disturb any Alameda whipsnakes that happened to be dispersing through either site, although the likelihood of this happening is considered to be low.

**18. Fish and Game Determination**

Based on the information above, there is no evidence that the Project has a potential for a change that would adversely affect wildlife resources or the habitat upon which the wildlife depends. The presumption of adverse effect set forth in 14 CCR 753.5 (d) has been rebutted by substantial evidence.

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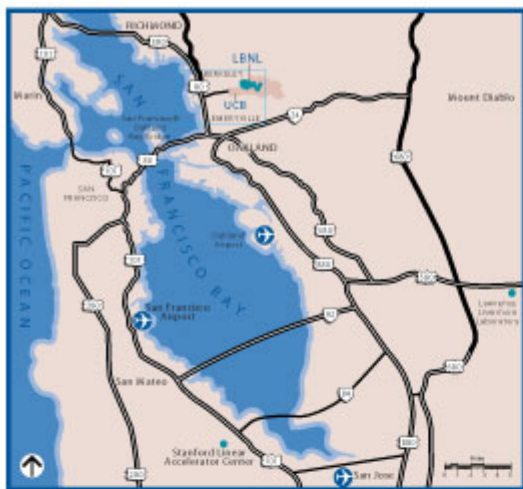
Yes (Certificate of Fee Exemption)

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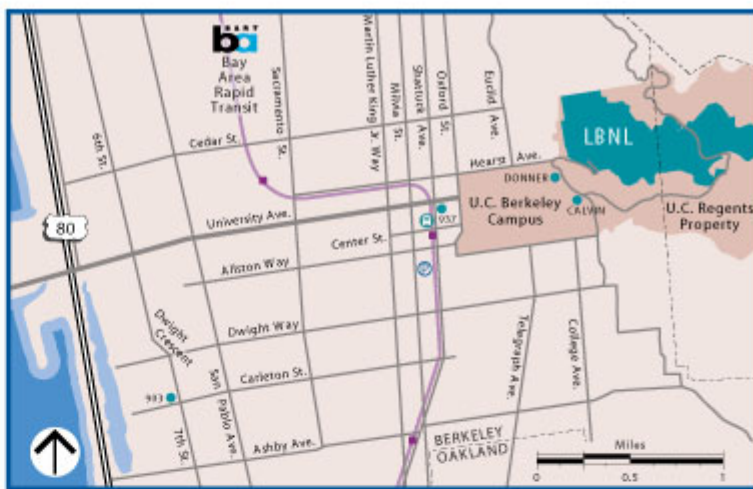
No (Pay fee)

Lawrence Berkeley National Laboratory

Notice of Preparation  
Building 49 and G-4 Parking Lot



LBNL Regional Location



LBNL Local Location



Building 49 and G-4 Parking Lot Site Locations

Figure 1: Regional, Local, and Site Location Maps

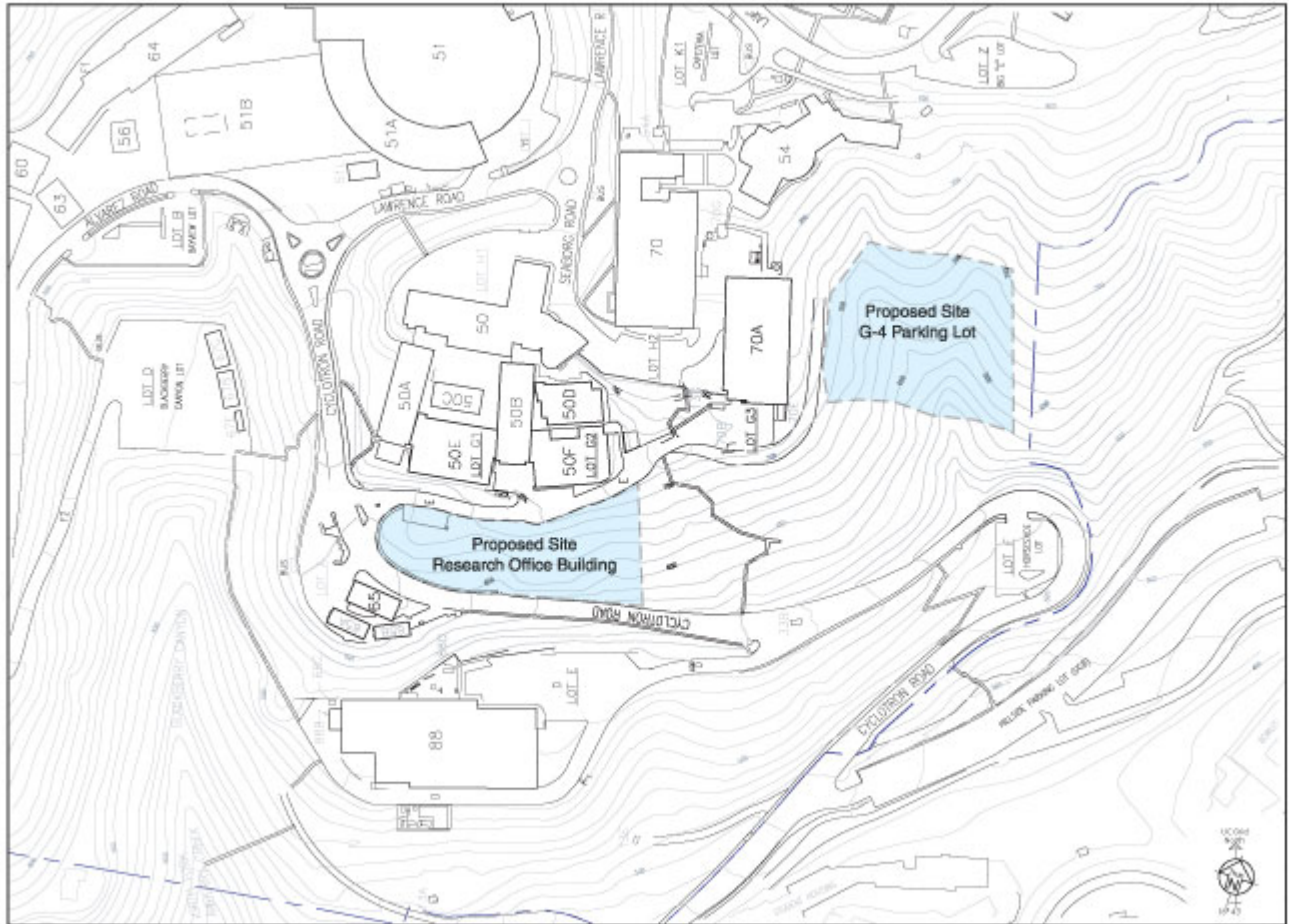


Figure 2: Building 49 and G-4 Parking Lot Site Locations

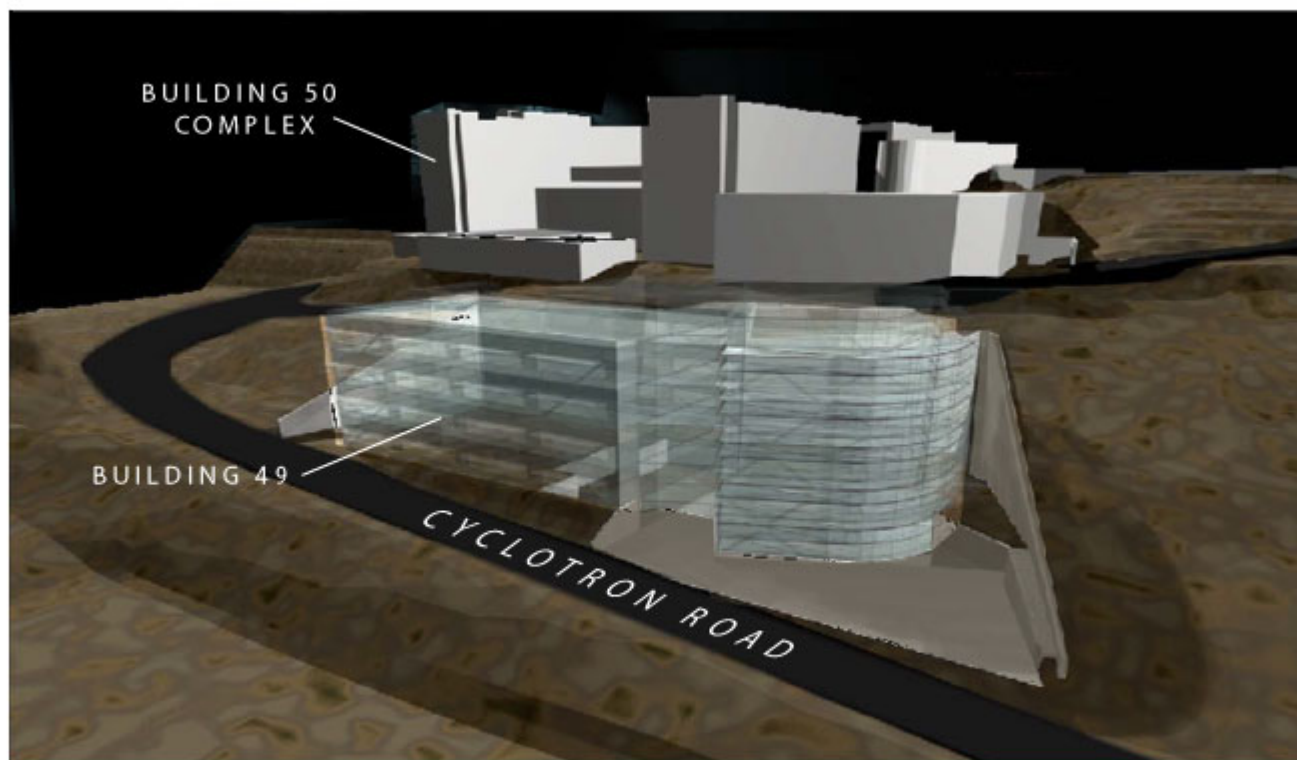


Figure 3: Building 49 Conceptual Building Form - Looking North East

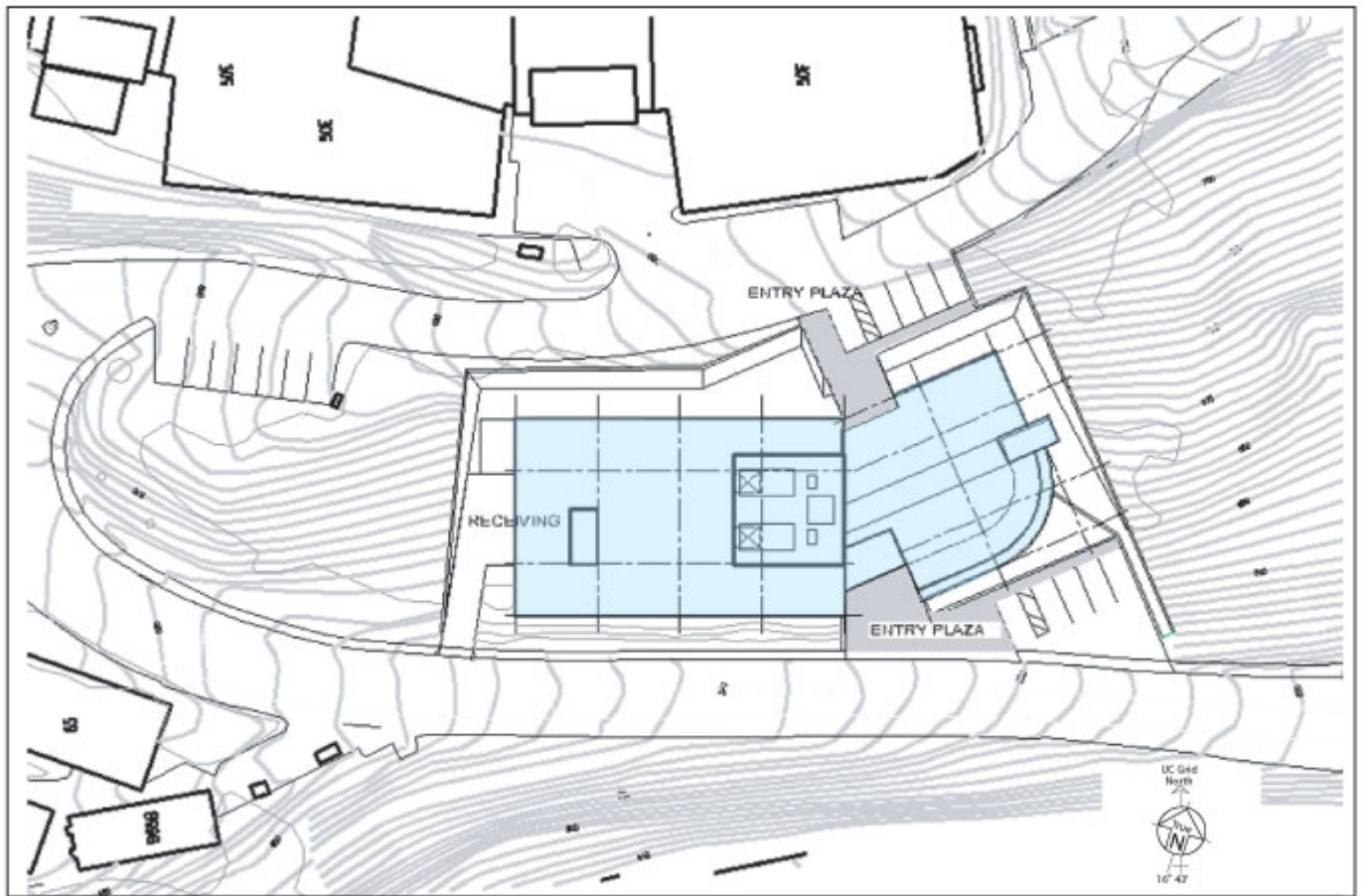


Figure 4: Building 49 Site Plan



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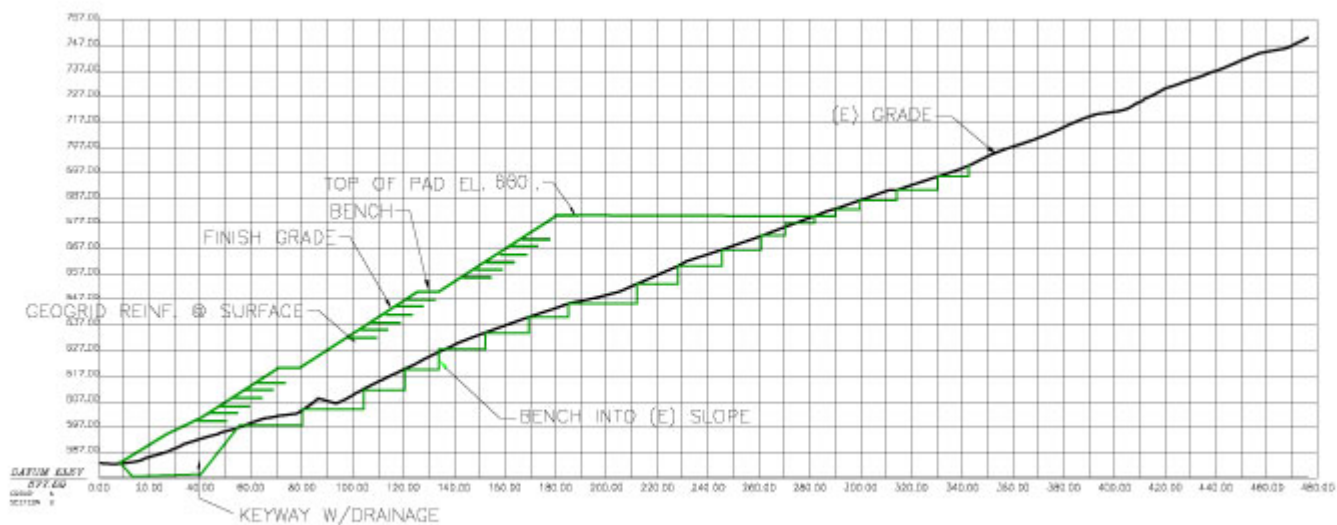
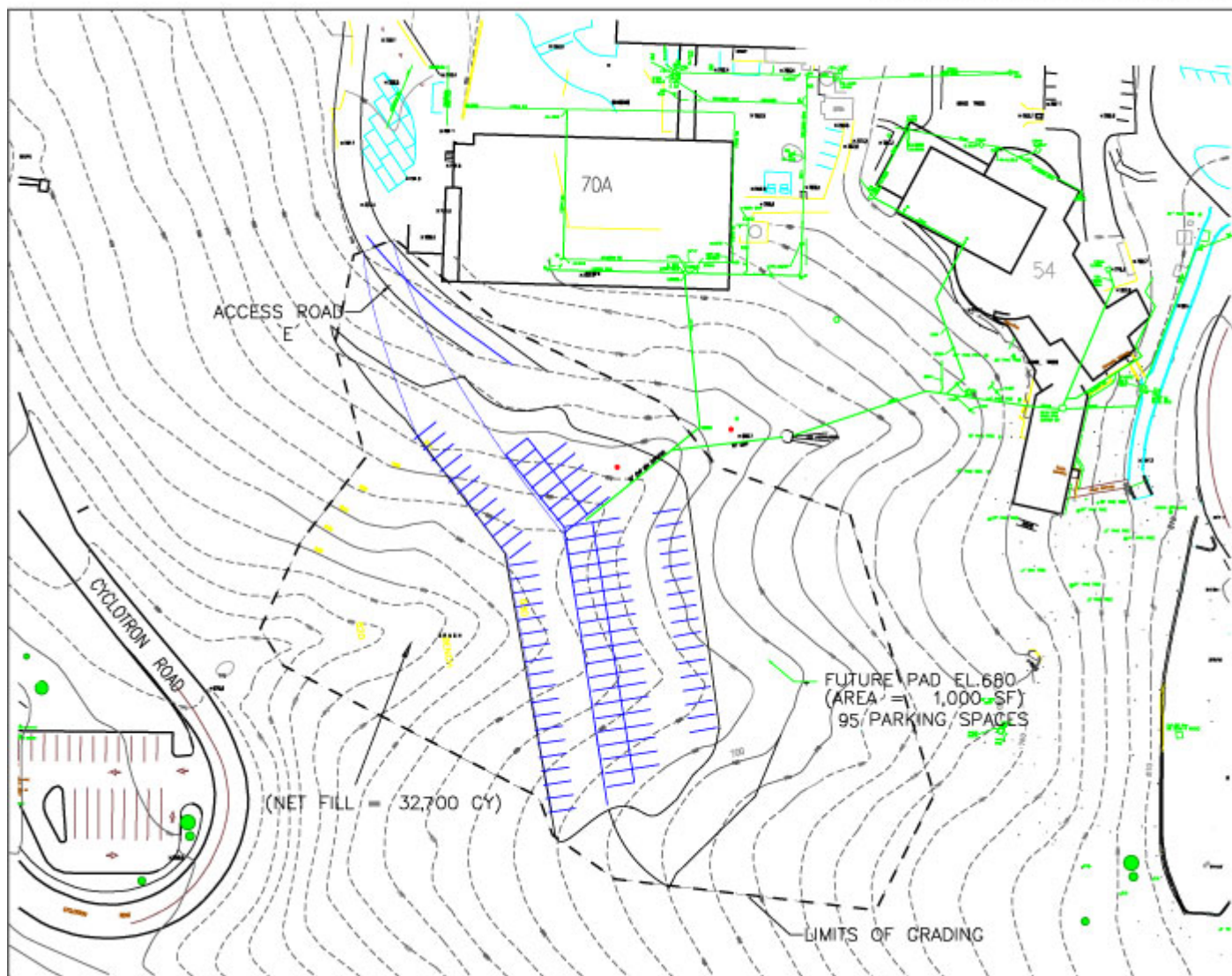
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Figure 6: G-4 Parking Lot and fill site

## Lawrence Berkeley National Laboratory

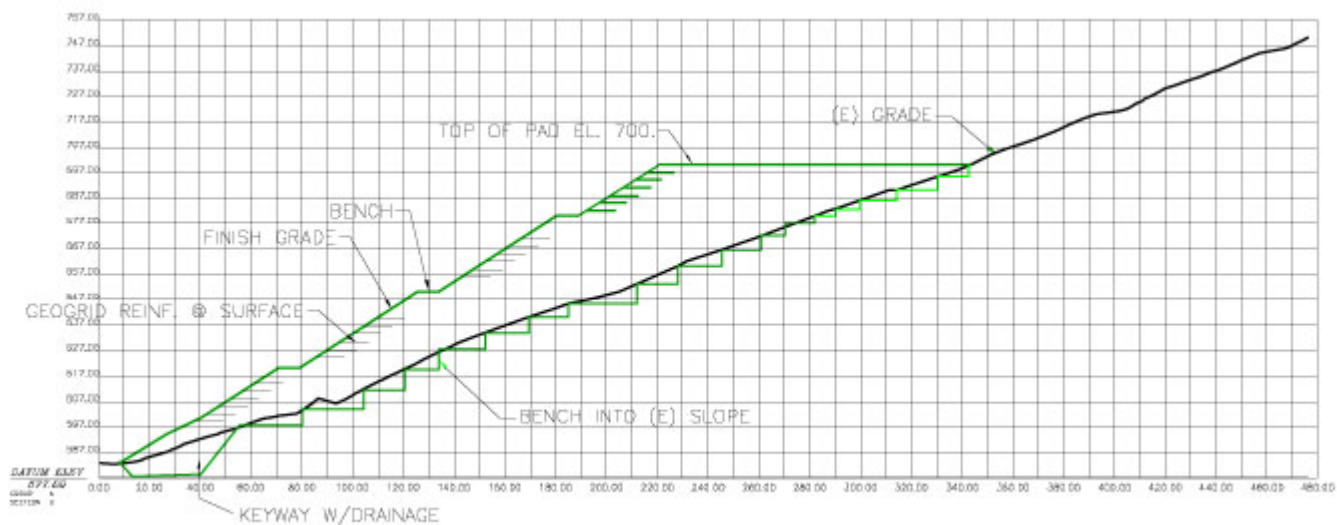
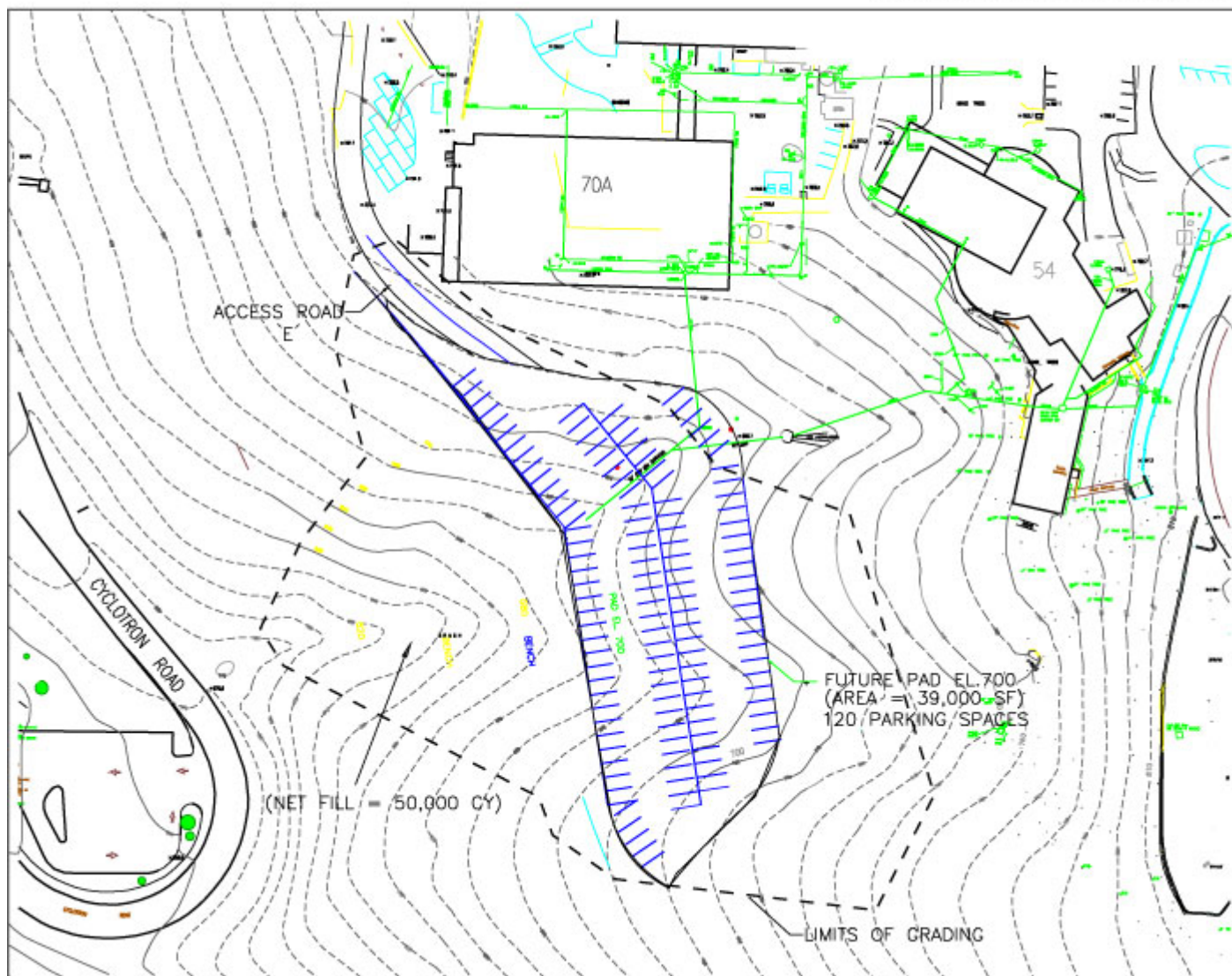
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Building 49 and G-4 Parking Lot

Figure 7: G-4 Parking Lot and fill site

